

**Notice of Allowability**

Application No.

10/765,533

Examiner

James P. Hughes

Applicant(s)

FINK ET AL.

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Appeal Brief filed December 5, 2006.
2. ☒ The allowed claim(s) is/are 7-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

1. The specification is amended: insert a comma -- , -- between the words "graphite" and "diamond" in the last line of the second paragraph on page 5.
2. Claim 13: insert a comma -- , -- between the words "graphite" and "diamond" in line 2.
3. Claim 18: insert a comma -- , -- between the words "graphite" and "diamond" in line 2.

Authorization for this examiner's amendment was given in a telephone interview with Kelly Kordzik on February 13, 2005.

***Response to Arguments***

4. Applicant's arguments, see the Appeal Brief, filed December 5, 2005, with respect to the objections and rejections to claims 7-19 have been fully considered and are persuasive. The objections and rejections to claims 7-19 have been withdrawn.

Applicant persuasively argues (in light of the amended specification and claims) that the term "graphite diamond" resulted from a typographical error consisting of a comma omission. This argument is persuasive as graphite and diamond are both well known in the art. (See page 4 and the examiners amendment)

Applicant persuasively argues and provides evidence that the term "Amorphous diamond" is well known in the art. (See pages 4 and 5)

Applicant persuasively argues (e.g. on pages 2 and 3 of the Appeal Brief) that Rangwalla '507 does not teach a "cold cathode" (as recited in independent claims 7 and 8) as read in light of the instant specification (e.g. page 3, lines 18-26). One of ordinary skill in the art at the time of the invention would not have interpreted Rangwalla as teaching a substantially flat cold cathode as read in light of the instant specification.

***Allowable Subject Matter***

5. Claims 7-19 are allowed. The following is an examiner's statement of reasons for allowance. Independent claim 7 is allowed because the prior art of record fails to teach or fairly suggest an electron source, or means for, a cold cathode, wherein the cold cathode is substantially flat, a window in the evacuated vacuum envelope to permit passage of the electron

beam externally from the envelope; in combination with the other recited limitations in the claim.

Independent claim 8 is allowed because the prior art of record fails to teach or fairly suggest a method for operating an electron source, or means for the step of activating an electron field to cause an emission of an electron beam from a cold cathode within an evacuated envelope in a manner so that the electron beam passes externally from the envelope, wherein the cold cathode is substantially flat; in combination with the other recited limitations in the claim.

Claims 9-19 are allowed by virtue of their dependence on claim 8.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James P. Hughes whose telephone number is 571-272-2474. The examiner can normally be reached on Monday - Friday 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James P. Hughes  
Patent Examiner  
Art Unit 2883



**Frank G. Font**  
Supervisory Patent Examiner  
Technology Center 2800